

In the Claims:

Please amend the claims of the above-identified application as amended by the Examiner so as to read as follows:

1. (Currently Amended) A group robot system comprising a plurality of sensing robots, and a control apparatus controlling (i) an operation of each of said plurality of sensing robots, and (ii) a definition of areas in which each of said plurality of sensing robots are respectively located relative to said control apparatus,

~~wherein said control apparatus responds to a detection of~~
~~an object by one of said plurality of sensing robots by providing~~
~~a control such that each of said plurality of sensing robots, other~~
~~than said sensing robot that has detected said object, moves~~
~~outside of the respective area relative to said control apparatus in~~
~~which it was located prior to the detection of the object~~
wherein each of said plurality of sensing robots is equipped
with the same sensor function and a predetermined sensor
function level relative to the others of said plurality of sensing
robots, and,

wherein said control apparatus responds to a detection of an object by one of said plurality of sensing robots (a) by providing a control such that another of said plurality of sensing robots that is equipped with a function level differing from the function level of said one of said plurality of sensing robots that detected said object conducts a further search for said object, and (b) by providing a control such that a at least one of said plurality of sensing robot robots other than said one of said plurality of sensing robots that detected the object and said sensing robot conducting said further search moves outside of a respective area relative to said control apparatus in which it was located prior to the detection of the object.

2. Canceled, without prejudice.

3. (Currently Amended) The group robot system according to claim 2_1, wherein said control apparatus enables the predetermined sensor function level of a selected one of the plurality of sensing robots, and, wherein, when said selected one of said plurality of sensing robots having the-enabled function level detects an object, said control apparatus enables the predetermined function level of another of said plurality of sensing robots that differs from the function level of said one of said plurality of sensing robots that detected the object so as to provide a control such that said another of said plurality of sensing robots conducts a further search for said object.

4. (Currently Amended) The group robot system according to claim 2 1, wherein
said relative sensor function levels of said plurality of sensing robots is determined
by any of a sensing resolution, a sensor type, and a processing method of sensor
information.
5. (Previously Presented) The group robot system according to claim 1, wherein
said plurality of sensing robots and said control apparatus conduct
communication in a hierarchical manner wherein said control apparatus
has the highest level of hierarchy, and
said control apparatus responds to a detection of an object
by one of said plurality of sensing robots by providing control
such that said one of said plurality of sensing robots that has
detected the object and a another of said plurality of sensing
robots located at a hierarchical communication position between
said_one of said plurality of sensing robots and said control
apparatus that relays communication when hierarchical
communication is conducted from said_one of said plurality of
sensing robots to said control apparatus moves outside a
respective area relative to said control apparatus in which it was
located prior to the detection of the object.

6. (Previously Presented) The group robot system according to claim 1, wherein
said control apparatus includes a pheromone robot controlling travel of at least one of
said sensing robots,
and wherein said pheromone robot moves, when one of
said plurality of sensing robots detects an object, to a neighborhood of
said object.
7. (Previously presented) The group robot system according to claim 1, wherein
said control apparatus includes a pheromone robot controlling travel of at
least one of said plurality of sensing robots,
said pheromone robot being responsive to a detection of an object by one
of said plurality of sensing robots so as to provide a control such that
another of said plurality of sensing robots different from the one said
plurality of sensing robots that has detected said object moves to a
neighborhood of said pheromone robot.
8. (Previously Presented) The group robot system according to claim 1, wherein
at least one of said sensing robots is capable of fluttering flight
by fluttering motion.
9. Canceled, without prejudice.
10. Canceled, without prejudice.

11. Canceled, without prejudice.
12. Canceled, without prejudice.
13. Canceled, without prejudice.
14. Canceled, without prejudice.
15. Canceled, without prejudice.
16. Canceled, without prejudice.
17. Canceled, without prejudice.
18. Canceled, without prejudice.
19. Canceled, without prejudice.
20. Canceled, without prejudice.
21. Canceled, without prejudice.
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23. Canceled, without prejudice.

24. Canceled, without prejudice.

25. Canceled, without prejudice.

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29. Canceled, without prejudice.

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31. Canceled, without prejudice.

32. Canceled, without prejudice.

33. Canceled, without prejudice.

34. Canceled, without prejudice.

35. Canceled, without prejudice.

36. Canceled, without prejudice.

37. Canceled, without prejudice.

38. Canceled, without prejudice.

39. (Currently Amended) A sensing robot capable of fluttering flight included

in a group robot system comprising a plurality of sensing robots and a control apparatus controlling (i) an operation of each of said plurality of sensing robots, and (ii) a definition of areas in which of each of said plurality of sensing robots are respectively located relative to said control apparatus, ~~wherein said control apparatus responds to detection of an object by one of said plurality of sensing robots so as to provide a control such that another of said plurality of sensing robots moves outside the area relative to said control apparatus in which it was located prior to the detection of the object~~

wherein each of said plurality of sensing robots is equipped
with the same sensor function and a predetermined sensor
function level relative to the others of said plurality of sensing
robots, and,

wherein said control apparatus responds to a detection of an
object by one of said plurality of sensing robots (a) by providing
a control such that another of said plurality of sensing robots that
is equipped with a function level differing from the function
level of said one of said plurality of sensing robots that detected
said object conducts a further search for said object, and (b) by
providing a control such that a at least one of said plurality of
sensing robot robots other than said one of said plurality of
sensing robots that detected the object and said sensing robot
conducting said further search moves outside of a respective area
relative to said control apparatus in which it was located prior to
the detection of the object.

40. Canceled, without prejudice.

41. Canceled, without prejudice.

42. Canceled, without prejudice.

43. Canceled, without prejudice.

44. Canceled, without prejudice.

45. (Currently Amended) A base station included in a group robot system

comprising a plurality of sensing robots includes at least one sensing robot capable of fluttering flight through a fluttering motion and a control apparatus controlling (i) an operation of each of a plurality of sensing robots, and (ii) a definition of areas in which of each of said plurality of sensing robots are respectively located relative to said control apparatus,

~~wherein said control apparatus responds to a detection of~~

~~an object by one of said plurality of sensing robots by providing a control such that each of said plurality of sensing robots, other than said sensing robot that has detected said object, moves outside of the respective area relative to said control apparatus in which it was located prior to the detection of the object, and~~

wherein said base station corresponds to said control apparatus,

wherein each of said plurality of sensing robots is equipped

with the same sensor function and a predetermined sensor function level relative to the others of said plurality of sensing robots, and,

wherein said control apparatus responds to a detection of an object by one of said plurality of sensing robots (a) by providing a control such that another of said plurality of sensing robots that is equipped with a function level differing from the function level of said one of said plurality of sensing robots that detected said object conducts a further search for said object, and (b) by providing a control such that a at least one of said plurality of sensing robot robots other than said one of said plurality of sensing robots that detected the object and said sensing robot conducting said further search moves outside of a respective area relative to said control apparatus in which it was located prior to the detection of the object.

46. Canceled, without prejudice.

47. Canceled, without prejudice.

48. Canceled, without prejudice.

49. Canceled, without prejudice.

50. Canceled, without prejudice.

51. (Currently Amended) A pheromone robot included in a group robot system

comprising a plurality of sensing robots including at least one sensing robot capable of fluttering flight through a fluttering motion and a control apparatus controlling (i) an operation of each of said plurality of sensing robots, and (ii) a definition of areas in which of each of said plurality of sensing robots are respectively located relative to said control apparatus,

~~wherein said control apparatus responds to a detection of~~

~~an object by one of said plurality of sensing robots by providing a control such that each of said plurality of sensing robots, other than said sensing robot that has detected said object, moves outside of the respective area relative to said control apparatus in which it was located prior to the detection of the object, and,~~

wherein said pheromone robot controls travel of at least

one of said plurality of sensing robots capable of fluttering flight through a fluttering motion;

wherein each of said plurality of sensing robots is equipped

with the same sensor function and a predetermined sensor function level relative to the others of said plurality of sensing robots, and,

wherein said control apparatus responds to a detection of an object by one of said plurality of sensing robots (a) by providing a control such that another of said plurality of sensing robots that is equipped with a function level differing from the function level of said one of said plurality of sensing robots that detected said object conducts a further search for said object, and (b) by providing a control such that a at least one of said plurality of sensing robot robots other than said one of said plurality of sensing robots that detected the object and said sensing robot conducting said further search moves outside of a respective area relative to said control apparatus in which it was located prior to the detection of the object.

52. Canceled, without prejudice.

53. Canceled, without prejudice.

54. Canceled, without prejudice.

55. Canceled, without prejudice.

56. Canceled, without prejudice.